

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Petra Cirpus, et al.

Conf. No.: 2158

Application No.: 10/553,303

Group Art Unit: 1638

Filed: October 14, 2005

Examiner: Baggot, Brendan O.

For: USE OF GENES FOR INCREASING THE OIL  
CONTENT IN PLANTS

**RESPONSE TO RESTRICTION REQUIREMENT**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the restriction requirement set forth in the Office Action mailed June 12, 2007, Applicants provisionally elect Group I (claims 1-9 and 12) and the nucleotide sequence of SEQ ID NO: 1, and the corresponding polypeptide SEQ ID NO: 2, with traverse. Reconsideration and withdrawal of the restriction requirement is strongly urged for the following reasons.

**The Claimed Inventions Share a Special Technical Feature**

Because this application is a national stage filing pursuant to 35 U.S.C. § 371, unity of invention under PCT Rule 13.1 and 13.2 is the applicable standard. Unity of invention is fulfilled "when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical feature. The expression 'special technical feature' shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art." (PCT Rule 13.2).

The Examiner argues that the technical feature linking the claims is the genetically modified plant, which is not special and does not constitute an advance over the prior art, citing Hiatt et al. (U.S. Pat. No. 4,801,540). The Examiner further alleges that the inventions of Groups

I-III and IV-VI lack unity because the methods required for practicing the invention of Groups I-III are not required by any of Groups IV-VI. Applicants respectfully disagree.

As stated in the specification and repeated in the claims, the invention relates to the use of genes encoding oil synthesis enhancing proteins (OEP) that, when expressed in transgenic organisms, will increase the total amount of oil that is produced. See Specification at page 1. Thus, the common technical feature shared by all claims of Groups I-VI is the genes encoding OEP and not merely genetically modified plant as alleged by the Examiner. As the Examiner correctly characterized, Hiatt et al. discloses a genetically modified plant. See Official Action at page 2. Nonetheless, Hiatt et al. does not teach the use of genes encoding OEP to generate a genetically modified plant for increasing the total amount of oil production in the plant. Rather, Hiatt et al. concerns the isolation and use of plant polygalacturonase genes which do not encode oil synthesis enhancing proteins. See Hiatt et al., Col. 1, lines 13-16. Thus, Hiatt et al. does not teach the special common technical feature of the present application. Accordingly, it is clear that the present invention is distinct over Hiatt et al. in view of the different genes employed to produce a genetically modified plant, which further defines a contribution over the prior art.

Furthermore, the claims in Groups I-III and IV-VI share this special technical feature. The claims of Groups I-III relate to a method of increasing total oil in a plant or parts thereof by transgenically expressing an OEP in the plant or parts thereof. The claim of Groups IV-VI relate to a method of producing oil by extracting oil from the transgenic plant or parts thereof produced in Groups I-III. All of Groups I-VI relate to the use of genes encoding OEP. Additionally, the methods used to produce the transgenic plant expressing an OEP for practicing the invention of Groups I-III are essentially the same for practicing the method of Groups IV-VI. Since these claims share the same common technical feature relating to transforming a gene encoding OEP to increase oil production in an organism, they should be considered together as having unity of invention, and could be examined together with minimal burden. Accordingly, Applicants respectfully request that the Examiner reconsider the restriction requirement and examine all the claims in one application.

Moreover, Applicants respectfully submit that the restriction requirement should be withdrawn even under restriction practice. As stated in § 803 of the M.P.E.P. “[i]f the search and examination of the entire application can be made without serious burden, the examiner must

examine it on the merits, even though it includes claims to independent or distinct inventions.” (M.P.E.P. § 803, emphasis added). Because the same art relevant to a method for increasing oil production in a plant or parts thereof by transgenically expressing an OEP would be relevant to a method of extracting the oil from such a transgenic plant, there would be no undue burden on the Examiner to search and examine all Groups together.

For these reasons, Applicants respectfully request that the restriction requirement be reconsidered and withdrawn entirely.

#### **Restriction to a Single Gene Sequence Is Improper**

The Examiner further requires election of one single gene sequence reasoning that the different nucleotide sequences and amino acid sequences are structurally distinct and do not share a common technical feature. Applicants strongly disagree with this requirement and request reconsideration and withdrawal.

The invention can be used with many different genes that encode OEP. Restriction to a particular gene unduly narrows the claims and forces Applicants to file a multitude of applications to cover their invention. The Examiner states that the different genes do not share a core structure or common property and thus are not of a similar nature. Yet the methods of the invention can be used on all genes encoding OEP in a similar manner to produce transgenic plants with increased oil production. Thus, Applicants respectfully request that the requirement for restriction to one sequence be reconsidered and withdrawn.

#### **The International Examiner Found Unity of Invention**


Furthermore, unity of invention was found during the International stage. As shown in the International Preliminary Report on Patentability and International Search Report, the various claim types were present in the international stage and were searched and examined together. Thus, application of PCT Rules 13.1 and 13.2 by the International Examiners shows that unity exists.

#### **CONCLUSION**

For at least the above reasons, Applicants respectfully request that the restriction requirement be reconsidered and withdrawn and that all the claims be examined in one application.

This response is filed within one-month period for response from the mailing of the Office Communication, to and including July 12, 2007. No further fee is believed due. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 12810-00153-US from which the undersigned is authorized to draw.

Respectfully submitted,

By   
\_\_\_\_\_  
Hui-Ju Wu

Registration No.: 57,209  
CONNOLLY BOVE LODGE & HUTZ LLP  
1007 North Orange Street  
P.O. Box 2207  
Wilmington, Delaware 19899  
(302) 658-9141  
(302) 658-5614 (Fax)  
Agent for Applicants

#545514